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METHOD OF SECTIONING CARTILAGE FRESH, BY PARTIAL EMBEDDING.

B. L. OVIATT, Ithaca, N. Y.

I think there is no one who has tried the method of freehand sectioning who has not felt the need of some more accurate and less difficult method.

I wish to note a method which I have applied to sectioning cartilage.

The bone to which the cartilage is attached is cut two or three centimeters from the joint from which the cartilage is to be obtained. The well of the microtome is then filled with paraffine to within about one centimeter of the top, and as soon as it begins to turn white from cooling, the bone is inserted until the cartilage is in the plane of the microtome or a little below it. While the paraffine is cooling the cartilage is prevented from drying by placing on it a little cotton wet with artificial serum or normal salt solution.

By this method it is possible to obtain sections of uniform thickness; also much more rapidly than by the old method.

I have also applied this method to sectioning injected tissues with the precaution to cut very slowly and with a drawing motion, and at the same time keep the tissue and knife wet with twenty-five per cent. alcohol.

At the histological laboratory of Cornell University we had formerly been seriously troubled to obtain sections of cartilage in which the cells had not shrunken away from the matrix; and the only thing which has been found efficient in preventing this is the method used by Ranvier, and mentioned by him on page 279 of his Traité Technique d'Histologie, of dropping the sections immediately into a saturated solution of picric acid. Prof. Gage found by experimenting that the following mixture was even more effective:

Picric acid	7.5 Gr.
Alcohol 95 per cent	250 c.c.
Water	250 c.c.

By the use of picric acid the shrinking of the cells is entirely prevented, and when mounted still appear as perfect as in life.

After twenty-four hours the sections are transferred to water and allowed to remain six, or better, twelve hours, and then may be stained in any desired manner.

If they do not take the stain readily they may be left even longer in water.

THE MEIBOMIAN GLANDS IN THE CAT.—NOTE.

E. H. SARGENT, Ithaca, N. Y.

The Meibomian glands are small glands situated in the substance of the eyelids and opening, each gland by its own duct, on the free margin of the lid. They secrete a thick oily substance, formed from epithelial cells which have undergone fatty degeneration, which serves to prevent the lids from sticking together. The form of each gland is an elongated egg shape, with the large end nearest the margin of the lid. Each is made up of a number of chambers or acini, which open directly into the wide central cavity which extends nearly the whole length of the gland. This cavity is very large for the size of the gland, and has its greatest diameter near the open end of the gland. The walls surrounding this cavity vary in thickness somewhat inversely as the diameter of the cavity surrounded, being thick at the ends and thinnest where the diameter of the cavity is greatest. The duct which leads from this cavity to the margin of the lid is quite short, and in many cases has a constriction around it near the end which opens into the central cavity, seemingly to serve as a valve. These ducts open in slight pits on the margin of the lid, and in those cases where pigment is present it will be found to extend a short distance down the sides of the duct from its mouth. In some cases this duct is so very short as to become practically obliterated, and the opening is then a simple round hole opening directly into the central cavity of the gland.